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REVISION INEVITABLE

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THERE is no question that the inconsistencies and inconveniences of our present calendar place it as much out of date in modern ideas of efficiency and accuracy as pounds, shillings and pence in a monetary system. Almost everybody talks about it, but so far, like our talk of the weather, nobody has done very much, at least in getting tangible results.

It is well known that much careful study has been given the subject, and several proposals are under consideration. It is certain that careful consideration is necessary before a change is made. Every branch of business, commerce, science, art, is vitally interested. The interests of various branches are in many cases conflicting. But none of the objections appears to be insurmountable.

Calendar improvement in some form is an inevitable development. It is necessary for the various interests to consider their conflicting needs and arrive at the best solution.

When the solution is found and the change in calendar effected, the confusion immediately following the change will be soon forgotten, and like other modern improvements which have quickly become necessities, it will be hard to see how we got along under the old system.

It is not possible to design a calendar which is entirely satisfactory. At the bottom of this lies the fact that nature so far ignored man's convenience that she created a year containing 365 and a fraction days. The

fraction is bad to start with, but to make matters more complicated, the 12-month year and the seven-day week have been handed down to us. Since neither twelve nor seven is divisible into 365 without remainder, one year consists of 52 and a fraction weeks, and 12 unequal months.

To further confuse our planning, we have holidays, such as Easter, Labor Day and Thanksgiving, which we require to fall on certain days of the week, and which cannot have fixed dates in our present calendar.

The aim of calendar reform is to arrange months and weeks so that a year consists of a whole number of each, without remainder; also to make the month or quarter of such length that they contain a whole number of weeks. If the month would always begin on the same week-day, then week-days would occur on the same respective dates every month.

In a reformed calendar, the holidays would fall on fixed dates as well as fixed days of the week. Monthly or quarterly business statistics, and plans, would be made more accurate for comparison purposes, and many other activities would be greatly facilitated.

The fundamental and unchangeable fact on which any yearly calendar must be based is that the year contains 365 and a fraction days. If the week is to have seven days, there must be 52 and a fraction weeks in a year. The only way to have exactly 52 seven-day weeks is to find some way of discarding or ignoring the remainer of one and a fraction days in each year, so that they are not included in the scheme of week-days.

Further, if the year is to consist of 12 months, the months cannot be equal and at the same time consist of a whole number of weeks without remainder.

The statistician in business and science wants periods of the same length, so that his data will be accurately comparable. The navigator wants a 12-month year, because 12 is a more convenient factor for the computations in which he is interested. The aviator is interested in this phase of the subject, in connection with his navigation across oceans.

The movement to reform the calendar seems to be making slow but steady progress. No doubt a chief reason why it goes no faster is that it has not yet developed a real mass appeal. From a practical viewpoint, there are many things to be said in favor of a revised calendar, but none of these things are yet visualized by the average man as something of vital and immediate interest to his own daily life. The average man of course is unduly influenced by tradition and the dead weight of simple inertia.

On the other hand, those who are the real leaders in modern progress see the importance of calendar reform, and their support has an importance which cannot be ignored. Scientists, engineers, aviators and those in similar lines of progress are notably receptive to new ideas. They visualize a revised calendar as inevitable.

A CATHOLIC VIEWPOINT

By The Reverend Edward S. Schwegler, D.D.

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What does the Roman Catholic Church think about calendar reform? Indeed, it would be rather strange if the Church objected, for she herself has been one of the greatest and most radical calendar reformers in history. Father Schwegler, a veteran student of the subject, interprets the attitude of the Church and weighs the merits of the various current proposals in an article written for the Columbia Magazine, organ of the Knights of Columbus and the largest Catholic magazine in the world. His views, which have already had a circulation of more than 600,000 copies within the membership of the Catholic Church in America, are printed here as an important document in the world progress of the movement for calendar reform.

THE LITTLE calendar hanging up in your office, or study—or wherever you hang your calendar—has this year reached the ripe old age of 350; and during that whole time it has borne the name of a pope: "Gregorian." This calendar has served us well, and was a stroke of genius when it was first introduced by Gregory XIII in 1582.

However, there have been at various times, especially of late years, efforts to reform the calendar; and since making calendars is not a matter of faith or morals, devout sons of St. Peter may well pause and see if there is anything worth while in the new proposals.

There is no doubt that our present calendar could be improved upon. Take the case of Easter. The aberrations of that very unstable festival have been a source of complaint and strife not only for years but for centuries. Easter may come anywhere between March 22 and April 25—a period of 35 days. The disadvantages of this are manifold.

In the church calendar, where Easter is a pivotal feast—since all of Lent, the Feast of the Ascension, Pentecost and Trinity Sundays, and, indeed, the whole series of Sundays after Pentecost, depend upon it—in the church calendar there is a grand jumble, concerning which, if you are interested, you may ask your pastor. Only, try to catch him in a good humor, or you may hear some very pointed remarks. If you have ever seen that good man, before or during Mass, wildly flipping over the pages of the missal, or, in his private devotions, scowling at the contents of his breviary, you can probably attribute the major portion of his woes to the fickleness of Easter and the resultant fluctuations of church feasts, one of which he is endeavoring to locate.

If the clergy were the only ones to be inconvenienced by the vacillations of Easter, things might not be so bad. One naturally expects the clergy to give outstanding examples of patience and long-suffering. But there

are many purely commercial considerations that argue for a fixed Easter date. Various kinds of business—department stores, clothing establishments, textile industries, hat factories and the like—look to Easter as the time when winter clothing is discarded in our northern climate and spring habiliments are the order of the day. If Easter is early, business calculations are thrown out of joint and trade suffers because people continue wearing their winter clothes after Easter; while if Easter is late, the public will very likely keep its winter wear until the feast arrives and then go into summer articles at once, without buying any spring clothing at all.

Further, seasonable business transactions bring about the need of transportation; and Easter is also a time for vacations and home-comings on the part of many people living away from their families, like students and commercial travelers. Also, Easter marks the exodus of the spring tourist. As a result of these and similar facts, the regularity of railroad traffic is interfered with, and the hotels and resorts have a constantly changing factor.

Another difficulty has to do with the various activities that hinge upon Easter in some way or other. Take, for example, the schools. Examinations and vacations depend upon the date of Easter in many cases. With this central date varying as it does, constant changes must be made in the curriculum, a given subject must be divided and broken up in different ways each year, and there is much difficulty about the arrangement and length of the current semester.

In view of these and similar facts, is it surprising that people have long been proposing a fixed, permanent date for Easter? Indeed, some steps have already been taken in this direction. In August, 1928, the British Parliament enacted a bill that fixed Easter on the first Sunday after the second Saturday in April, although the bill was not to go into effect until some definite decision was had from religious bodies. The latest development is that the Fourth General Conference on Communication and Transit of the League of Nations approved by a substantial majority the proposition of stabilizing movable feasts and of fixing the Sunday following the second Saturday in April for the celebration of Easter.

But now, would it not be still more preferable to make Easter completely stationary, so that it would always fall both on a definite day and on a definite date? If the above proposition is carried out, Easter can still wander: it can come anywhere from the ninth to the fourteenth of April. Would it not be by far more satisfactory, for instance, to be able to say once and for all, "Easter is Sunday, April 8th"?

This brings us to the vexed question of calendar reform, a subject upon which thousands of brains have been racked and millions of words written. The conference of the League of Nations just referred to also considered this matter; but its decision was that "the present [October, 1931]

is not a favorable time, taking into account the state of opinion"; that the various governments were not ready to decide upon the expediency, "from an economic and social point of view," of simplifying the calendar.

It would seem, therefore, that our grim old friend, General D. Pression, has one more victory to his credit: he has routed calendar revision, which, a short time ago, seemed to be growing steadily in popular favor. However, the reform movement was, and still is, a mere infant that has not had a fighting chance. If it were only big and strong, with an army of public approval at its back, it might sally forth upon the battlefield of economics, and give the old General something of an engagement; at the very least, it could wage an annoying guerilla warfare upon the old reprobate's flanks.

For not only our present Easter, but our whole present calendar is losing us money. It is bad for business. Why? Because of its many irregularities and anomalies. Someone expressed the difficulty rather laconically by saying that we should not talk of *the* calendar but of *them* calendars. We really have fourteen calendars instead of one, and the calendar of a given year is exactly reproduced only once in 28 years. Owing to the fact that the seven days of the week go into the year's total of weeks a fractional number of times (52 1/7 in common years, 52 2/7 in leap years), the dates of the month in one year are on a different day of the week in the next year; and in order to find out on what date a given day of the week will fall or has fallen, or vice versa, one must either go through an intricate calculation or look up the calendar for the year in question. Besides this, the weeks do not fit into the months with any regularity; so that, for instance, it is impossible to say off hand whether a certain month will have four or five pay-days, or to know how many work-days it will have. And finally, the months vary in length by from one to three days—to a maximum, therefore, of eleven per cent; and so comparative statistics from month to month are unreliable and in constant need of revision.

Even this bare statement of the difficulties hints at the bad effect of the calendar on the pocketbook. For example, statistics concerning rainfall and temperature, the prevalence of diseases, the death-rate, etc., are not parallel from year to year because the week or month they are based on is constantly changing. Similarly, statistics for expenses or income in a given week or month are not comparable to the figures for the same week or month in a preceding or following year. As a result, either a misjudgment is made, or a constant readjustment of the statistics must be instituted. And both misjudgments and constant readjustments, whether on a farm, in a hospital, in a health bureau or in a business, cost money.

Irregular holidays also throw various calculations off. In one year a holiday comes during the week; in another year on Sunday. That means one more or less business day, as the case may be, in parallel periods. Again, a big business day, like Saturday, may in one year coincide with the day before a holiday (Christmas, e.g.), in another year coincide with the holiday itself, and in still another year come several days before or after the holiday. As a result of such things, the monthly production in a business may decline while the daily production may be increased; and the owner has, in any event, a faulty index of the actual business done in comparison with the average or with the past.

Time and patience are also worth money. And much time and patience are lost owing to the calendar. To give just one instance: if a board of directors is to meet, say, on the tenth of every month, or the third Tuesday of every month, a calendar must be everlastingly consulted to see that the tenth does not fall on a Sunday or that the third Tuesday is not a holiday.

It is to obviate these, and many similar difficulties, that calendar reform has been ardently agitated. The calendar should be the same from

year to year; the months should be equal, or nearly equal; there should be the same number of days and weeks in the same month from year to year; each quarter should have the same number of days (now the number may vary from 90 to 92); holidays should always fall on the same day and date; and one should be able to easily calculate on what date of the month a given day will fall.

On September 30, 1927, after three years of investigation, the League of Nations invited all countries, the United States included, to present reports on calendar reform in their various territories. By June, 1930, twenty-four nations had organized committees for this purpose. In the United States the result was the formation of the National Committee on Calendar Simplification. It was organized July 9, 1928, under the chairmanship of the late Mr. George Eastman, of Rochester and Kodak fame. Mr. Eastman had been interested in calendar reform for some time: he became the supporter of Moses B. Cotsworth, a Canadian engineer who has practically devoted his life to the project of calendar revision. Mr. Cotsworth had devised and strongly advocated the "International Fixed Calendar," which would inaugurate a calendar of thirteen months of twenty-eight days each, together with one or two extra-calendrial days each year.

Meanwhile there arose in New York City, under the presidency of Elisabeth Achelis, "The World Calendar Association." This organization launched a publication—*The Journal of Calendar Reform*—in June, 1931, and is agitating the acceptance of a 12-month calendar, in which, also, one or two days would be inserted each year.

The League of Nations, in response to its invitation, received nearly two hundred suggestions for the revision of the calendar. Of these, three were typical: the two mentioned above, and a third kind that would insert into the calendar a week or more every few years.

The whole bone of contention between this "intercalation" type of calendar and the other type mentioned is that the latter inserts one day into every common year and two days into every leap year, *which days are not counted and are to be international holidays.* This produces a year of 364 days; 364 is exactly divisible by 7, the number of days in the week; and therefore a permanent, unchangeable calendar results. By this plan, therefore, there would be one week in ordinary years and two weeks in leap years that would contain eight days each, although only seven days would be counted. And this fact would break the traditional succession of the Sabbath and the Sunday, which—so say the opponents of the scheme—are divinely ordained to come every seven days.

To remedy this difficulty, the "intercalation" calendar is brought forward. An example of such a calendar is the one advocated by an American priest, the Reverend James A. Colligan, S.J., of the University of San Francisco. Father Colligan, and those who see the thing as he does, pours oil on the troubled waters by counting 364 days each year, keeping the seven-day week intact, and then inserting a whole week every so often. The reverend reformer has published (1930-31) a small book and pamphlet on the subject.

Father Colligan makes several suggestions. But his essential and, seemingly, most favored plan can be seen from his proposals for a revised calendar of thirteen months.

Each month would have 28 days. The thirteenth month, called "Columbus," comes between November and December. From 1930 onwards, "every year having its last two numbers divisible by 6 will have an extra month [week?] of seven days. Also every year ending with the number 99, and every centurial year not divisible by 400, will have this extra month. This extra month will be called Pax [Peace] and its first day will be Sunday. It will follow the month of Columbus." Therefore, for instance, in 1936, 1942 and 1948, the extra week will be added, as also in the year 1999 and the year 2100.

The plan is simple enough. It amounts to doing the same thing that we now do. But instead of adding one day every four years, as at present, Father Colligan takes away a day each from every six years, and then adds the six days, plus a day, in the sixth year; or, one may say, practically, that he adds a day every six years instead of every four years. He then makes up for lost time in the years ending with 99 and in certain centurial years by inserting an additional week.

Now this article is not controversial, but simply explanatory. And at this point it may be explained, without one's expressing an opinion either way, that many people who have studied calendar reforms do not approve of the kind of revision typified by Father Colligan's proposals. Here are some of the reasons. (1) The "Pax" week is anomalous, clumsy and not symmetrical with the rest of the calendar. (2) The extra week throws out the time of the vernal equinox. The vernal equinox marks the beginning of spring; it is that time of the year when the sun is moving northward in the heavens and day and night are just equal. By Father Colligan's method the vernal equinox could vary, in the course of time, by thirteen or fourteen days. All the seasons would be similarly "out of joint," much to the confusion of farmers, sailors, and others depending on the regular recurrence of the seasons in one way or another. (3) The system of intercalating long periods in the calendar is quite antiquated and would be a step backwards. Hammurabi was one of the first historical personages to use this method. (4) Corresponding weeks in successive years would not have the same relative position with regard to the actual, solar year. This would be bad for science, especially for astronomy. (5) Events occurring in "Pax" months could be calculated only with "confusion worse confounded" than our present difficulties. Anniversaries, birthdays, annuities, etc., would become quite mixed up. (6) The intercalated calendar was not one of the two suggested by the League of Nations after much study.

Father Colligan also proposes several other calendars, in lieu of the above, but these resolve themselves into the other two principal plans already referred to. Undoubtedly the most intriguing of the two is the "International Fixed Calendar" sponsored by Mr. Cotsworth and Mr. Eastman. By this scheme there will again, be thirteen months of twenty-eight days—364 days in the year. The extra month will be called "Sol" (Sun), and will be placed between June and July. An additional day, to be dated December 29 and called "Year Day," will be added in ordinary years to the end of December—and this day will not be calculated as a usual day of the week. Similarly, in leap years another extra day will be added to the end of June, dated June 29 and called "Leap Day." These extra days will be observed as international holidays.

The 13-month plan is beautiful in its simplicity. It would practically do away with the need of calendars, since the calendar for a whole century, together with all necessary information about leap years, could easily be printed on a little card; and watch dials could be made to indicate the day and date as they now indicate the hour and minute. The plan would make the calculation of past or future dates and days almost ridiculously easy. However, the disadvantages enumerated by the enemies of the 13-month idea are numerous, and can only be briefly stated here. (1) The change is too radical. A number of familiar dates, holidays and feasts would be quite dislocated. Encyclopedias, works of reference, etc., would again have to make the antiquated distinction between "Old Style" and "New Style" dates. The old calendar, the old months are so ingrained that it is doubtful if people could be forced to discard them. (2) The number thirteen is unfortunate for several reasons. There is the irrational, but nevertheless objective superstition concerning it. Then, thirteen is not easily divisible in terms of weeks or months. A quarter would be 3¼ months, for example. Monthly accountings

of salaries, rents, interest would have to be calculated in thirteenths, a very awkward fraction. (3) The last day of the month, the biggest one for accounts, inventories, billing, etc., would always fall on Saturday, busiest day of the week along similar lines. (4) All monthly events and obligations—attending meetings, paying rent, collecting statistics—would have to take place thirteen times a year instead of twelve. (5) Comparative statistics from the past would be rendered valueless, or else would all have to be converted to the new order. (6) From an astronomical standpoint, there are many difficulties against the 13-month calendar. Twelve goes twice into 24, the number of hours in the day, and is simply divided by 6, 4, 3 and 2, fractional parts of the year. These facts make a number of basic astronomical calculations simple and easy at present.

The greatest adversary of the 13-month International Fixed Calendar is "The World Calendar," advocated by the World Calendar Association. This plan contains the maximum regularity consistent with the minimum of change, and the result is a calendar that looks quite familiar, and yet is quite stable and changeless. A day is taken from March, May and August. Two days are added to February and one to April. All the other months—January, June, July, September, October and November—remain the same. An extra-calendrial day called "Year Day" is added between December 30 and January 1 in ordinary years, while in leap years a similar day called "Leap Day" is added between June 30 and July 1. And that is all.

This calendar has all the advantages of the number 12 combined with remarkable regularity and symmetry. Each quarter contains 91 days. Traditional dates are kept; a few new ones, like February 30 or April 31, would be so near their equivalent in the old calendar that no confusion would ensue. The three months of each quarter have their number of days in the order 31—30—30: a fact easily remembered. The first month in each quarter begins on Sunday, the second on Wednesday and the third on Friday: a fact also easily remembered. From this latter bit of knowledge the day on which any date would fall could be calculated with reasonable ease. You ask yourself, for instance, "On what day does the 16th of July fall?" And here is a picture of your mental calculation: "July—first month of quarter; first is on Sunday; Sunday the first, eighth, fifteenth; the sixteenth is on Monday." And so on.

Essentially, the only thing this 12-month calendar does not do, as compared with its 13-month rival, is to make the month commensurate with the week. But this is a matter of little or no practical value; it has only a theoretical value with regard to simplicity and symmetry.

Which of these two calendars is preferable? Here is a case for the jury of public opinion to pass on. At the recent League of Nations Conference already spoken of, two nations supported the 13-month calendar: Canada and Yugo-Slavia; and Portugal, though not deciding definitely, reported opinion in favor of the plan. Two other nations advocated the 12-month revision: Switzerland and Greece. Great Britain, Japan, Belgium, the Irish Free State, Holland, Sweden, Germany and others, would not commit themselves, but stated that popular opinion in their territories either favored the 12-month plan, or was at least opposed to the 13-month reform. China proposed a calendar of its own; Norway and the United States made no recommendations and expressed no preference.

Therefore, international opinion to date seems more inclined towards the 12-month calendar than any other.

And meanwhile, what does the Church think of all this? She should be vitally interested, for the calendar plays a most important rôle in her yearly activities. But she is not excited about the proposition. She is too old to get excited. Consulted by the League of Nations, the Holy See stated (March 7, 1924) that "from the point of view of dogma, the reform of the calendar would meet with no difficulties"; but that the matter of changing church traditions would have to be discussed in an ecumenical

council, and that it would be "neither legitimate nor desirable" to depart from these traditions "except for weighty considerations connected with the general interest." So the Church's stand might be expressed somewhat like this: "There is no insuperable obstacle. But show me the advantages first; and then we will go into the matter thoroughly."

Indeed, it would be rather strange if the Church objected to calendar reform, for she herself has been one of the greatest and most radical calendar reformers in history. But to understand her work along these lines it is necessary first to summarize briefly the genesis and development of our present calendar.

The whole stormy history of the calendar revolves around one stubborn little fact: the number of days in the year, which the calendar tries to chart, is a very uncompromising figure. To be precise, the year contains exactly 365 days, 5 hours, 48 minutes and 46.15 seconds. Now, if a person goes ahead on the natural assumption that there is a certain number of whole days in a year, he omits the extra hours, minutes and seconds, and so finds out eventually that he has counted either too many or too few days. The fractions left out or added accumulate; and the seasons either run ahead or lag behind with respect to their proper position in the year—or with respect to the equinoxes and solstices, which is saying the same thing.

A further cause of confusion is the moon. As might be expected, many people began to count time by this satellite because it appeared and disappeared so regularly. And then more trouble began. For the period between two full moons is another outlandish figure: 29 days, 12 hours, 44 minutes and 2.8 seconds. This sum does not go evenly into the number of days of the year, even roughly speaking: 365¼ divided by 29½ leaves about 2/5ths of a month, or some 11 days. Consequently, if our ancestors counted off twelve moon periods and called them a year, they found the months traveling through the year at a scandalous rate; the original spring month might occur in the middle of fall, and the like.

The grandfather of our present calendar—the old Latin—had to contend with both these difficulties. From a 10-month affair in nearly pre-historic times it had evolved to a 12-month, 355-day arrangement in the first century before Christ. An extra month was added every two years or so to make up the difference between 355 and 365; therefore this calendar made some attempt to follow along with the sun and the moon at the same time. In 46 B. C. entered upon the scene the Mussolini of antiquity—Julius Cæsar. With the help of an Egyptian astronomer he dethroned the moon entirely and based his calculations upon a star-measured, solar year of 365 days and 6 hours. The old year was behind time, owing to faulty intercalation, when Cæsar began to clean house. To the current year he therefore added three months, producing an extraordinary year of 445 days. This brought the vernal equinox back to the 25th of March. Cæsar then portioned his 365 days among the twelve months, and decreed that every fourth year an extra day should be added, thereby making up the total of 365¼ days per year.

The result of this sweeping and effective reform was known as the Julian calendar, after its illustrious designer. But the Julian calendar also was imperfect. By adding a day every four years it added too much: some 11 minutes and 14 seconds too much. The fraction accumulated, and in the course of centuries amounted to days, so that the calendar time of spring began to move again as compared with the solar time. When the matter was brought to the attention of the Council of Nice, the fathers investigated, and then decided that the vernal equinox was not on March 25, where it should be by the Julian calculations, but on March 21. Hence, the fraction gained each year from 46 B. C. to A. D. 325 had amounted to about four days. And this state of affairs went right on until, by the middle of the sixteenth century, the actual vernal equinox was on March 11, the Council of Nice notwithstanding. Then it was that a spiritual Cæsar of the Church stepped in and adjusted things. In 1582 Gregory XIII, after consulting with

princes and learned organizations, and after considering the recommendations of the Council of Trent, decreed that ten days should be omitted from the current year, so that the day after the fourth of October should be the fifteenth. This brought the vernal equinox back to where the Council of Nice said it should be—the twenty-first of March. And in order to remedy Cæsar's faulty computation of the extra or "leap" day, the Pope ordered that three out of every four centurial years, which would be leap years by the old arrangement, should be common years; in other words, only the years ending in two ciphers and divisible by 400 should be leap years.

This reformed calendar of Gregory is now used in nearly all civilized countries. It is not absolutely accurate either; but it will keep us in line with the sun, the stars and the seasons for a long time to come. Despite its evident merits, however, it took some nations a long time before they adopted the "popish" reform. England, for example, did not come into line until 1752; and even then the orthodox Protestant populace shouted in the streets, "Give us back our eleven days."

A great deal has been said in the foregoing about the vernal equinox. Why should the Church be so vitally interested in the beginning of spring?

The answer to that question is by far too complicated to be dealt with adequately here. It brings us to the very involved chapter of church history known as the "Easter Controversy." However, this much may be said. The Last Supper took place on the feast of the Jewish Passover, the fourteenth day of the Jewish month Nisan; and the feast of the Passover in the year of Our Lord's death fell on a Thursday. Christ therefore arose from the dead on Sunday, the seventeenth of Nisan. Now the month Nisan was calculated by the first appearance of the new moon following upon the vernal equinox; the Jews had a combination lunar-solar calendar. Hence, in some parts of the Church the Easter celebration began on the fourteenth of Nisan and the Resurrection was celebrated on the seventeenth, no matter on what day of the week these dates fell; whereas in other parts of the Church Easter always took place on the *Sunday following* the fourteenth of Nisan. Finally, after much misunderstanding and confusion had taken place, the Council of Nice (325) decided that Easter was everywhere to be celebrated on the Sunday following the fourteenth day of the moon immediately succeeding upon the spring equinox. And this is the rule we observe up to the present day.

The "Easter Controversy," therefore, presents another angle of the Church's calendar reform activities. But there are other religious groups who look askance at any interference with the current methods of measuring time—at least when the proposed corrections advocate blank, extracalendrial days, as is the case with the International Fixed Calendar and the World Calendar. The most decided opposition to the latter comes from the Jews, the Seventh Day Adventists and a few other Sabbatarians. These groups base their objections, as already hinted, on the theory of Sabbath continuity, so-called. The fact that there should be one day of rest in every seven days is a divine ordination, say they, established by God Himself, Who, in the creation of the world, labored six days and rested on the seventh. In all the course of Jewish and Christian history the continuity of the Sabbath has never been broken. And now come the calendar revisers, who would destroy the divine plan and, with their diabolical weeks of eight days, defy the dispensations of the Creator!

Answers to this difficulty are many, and, at times, ingenious. First of all, the argument rests upon the assumption that the "days" of the creation, as recounted in Genesis, are consecutive days of twenty-four hours. This opinion among modern commentators of the Bible is practically nonexistent, for such sciences as geology, paleontology, etc., have shown that many long periods of time were necessary for the development of the world as we find it today. The only way to escape the very natural and logical conclusions of science along these lines is to suppose miraculous intervention by God at various times in the world's history; or else to posit that God created the world as it is, with all its strata, geological formations, evidences of development, etc.; neither of which suppositions must be made in order to support the historicity of the Bible. What exactly the historical facts of creation—its date, its duration, its various circumstances—are in real truth, nobody knows. Catholics are allowed great liberty in the matter, being constrained by their teaching authority to accept as historical only such facts in the Biblical narrative as reach to the very foundations of their religion: the

initial creation by God of all things, or the unity of the human race, for example. And among these facts is not to be included the proposition that God created the world in six consecutive days of twenty-four hours' length.

Even if this latter hypothesis could be demonstrated, it still could not be shown that there is an unbroken line of seven-day weeks from the creation to the present. The first mention of the Sabbath in the Old Testament is in Exodus xvi, 22, in connection with the fall of manna. But how much time elapsed from the creation to Moses is something no one can say; and the context of the chapter mentioned shows the Sabbath as an institution already long established. Scholars think that the custom may have been of Babylonian origin. But where or when it first started, or that it continued unbroken and unchanged from the creation to the present, cannot be shown historically by any argument whatsoever; and therefore "Sabbath continuity" is an unproved theory.

In fact, it would seem that no Christian, observing Sunday as the day of rest, can really maintain "Sabbath continuity." For somewhere along the line there must have been an eight-day week when the day of rest was changed from the seventh day of the week to the first day. And Christ said, in condemning the too rigorous observance of the Lord's day, "the Sabbath was made for man, and not man for the Sabbath." (Mark ii, 27.) On the other hand, the Church's recent statement on calendar reform does not of necessity decide the argument; for the calendar can be reformed without the eight-day week, as we have seen. It would be interesting to have some further decision from the Church on this point.

One of the really ingenious refutations of Sabbatarian contentions is the following: If a man made a trip around the world, he would, somewhere along his route, be forced to celebrate the Sabbath either on a sixth or an eighth day, for he would lose or gain a day in the course of his journey. Hence, contend the reformers, the Sabbath is to be observed in its spirit, not in its absolute letter.

But suppose the question of "Sabbath continuity" were decided in the negative and we had a new calendar—what would be the advantages from a religious and Catholic standpoint?

Let us say the World Calendar, as illustrated, were adopted. Its use could be started next year, or in 1939, without the slightest inconvenience; for in these years January 1 is on Sunday. Easter could well be fixed for Sunday, April 8, as the World Calendar Association advocates: on the one hand, there is no definite indication of the exact day of the month on which Christ rose from the dead, and, on the other, April 8 is a fairly seasonable date for the northerly climates where so many Christians live.

Christmas under the new arrangement would fall for all time on Monday, and so there would be the advantage of that day and Sunday—two holidays—coming together, and of a straight, unbroken week before Christmas. Then there would be another unbroken week up to Saturday, which would be followed by two more holidays: Year Day and January 1.

The latter would be the old Sunday and New Year's Day rolled into one. The former, besides being a civil holiday, could well be made a holy day of obligation. Then we would have, practically, the same situation that exists now when Christmas and New Year's come on Monday, except that there would be an extra weekday between the two feasts. Religiously speaking, this state of affairs is quite advantageous, for it results in a day of rest and worship preparatory to the great religious festivals that signalize the end of the year.

Besides this, most Catholics like to receive Holy Communion several times during the Christmas season. When Christmas and New Year's come in the middle of the week, and the ordinary duties of the workaday world intervene, these Catholics often find, or erroneously think, that it is necessary to go to confession several times: the Saturday preceding the Sunday before Christmas, Christmas Eve, the following Saturday, etc. With the new calendar they would have to confess, at the most, twice: the Saturday before Sunday, December 24, and the Saturday before Year Day: for usually the confession would "last" until Christmas and New Year's, respectively. Probably, therefore, confessions on the Sunday before Christmas and on Year Day could either be omitted, or else much lightened. And this state of affairs would be much to the advantage of the parish priest. As things are now, his Christmas is often spoiled by the great fatigue attendant upon the unusually ardent Christmas program: long hours of Christmas Eve confessions, a solemn midnight Mass (in many dioceses and churches) and two or three Masses on Christmas Day.

One may discover numerous advantages in the new calendar other than those already hinted at. But will we ever reform the calendar? It is hard to say. Our present method of counting days, and weeks, and months is an old, old habit—and old habits are hard to break. But you never can tell. Standard time was once looked upon by many people as a diabolical intervention with the divine plan of counting off the hours; then gradually standard time became "God's time" and daylight-saving time was the horrific innovation.

Some fine day, perhaps, a standard calendar may be as familiar to us as standard time, and April 8 will be as synonymous with Easter as December 25 is with Christmas.

HARMONY NOT MONOTONY

By James F. Morton
Curator, Paterson Museum, Paterson, N. J.

THIS question of the calendar is one in which, even more than in some other departments of life, there is danger of passing from the Scylla of excessive looseness of arrangement to the Charybdis of a deadly rigidity.

In an earlier age of science, a favorite, though now partly discredited expression was that "Nature abhors a vacuum." With greater certainty, it may be said that if nature abhors one thing more than another, that object of abhorrence is what may be called onesidedness. Nowhere in nature can absolute monotony be found. Such a condition is theoretically possible only in the complete stagnation postulated for the so-called absolute zero of temperature. Apart from that hypothetical state, we find everywhere incessant movement and constant variation.

It is a commonplace that no two leaves on a tree are exactly identical; and the ultimate particles of matter are in ceaseless motion. Sameness, if possible, would be hopeless stagnation; and utter quiescence is death.

On the other hand, wherever life exists, there is a trend toward unity. The electrons move with a certain regularity and in such relation to their nucleus as to form definite atoms, which in turn become the units of the elements out of which all matter is built up. The cells of our bodies are linked together for the purpose of maintaining the functions of the entire organism. The myriads of leaves on the tree, though varying in slight detail, are alike in basic character, and all together form a pattern for the particular tree, which satisfies the demand for a harmonious whole.

There is no contradiction between the two facts. Both are necessary to the maintenance of the rhythm of existence. The great law of life is harmony, secured by the coordination of forces. All evil is onesidedness. In man, the balanced development of his faculties gives him a finely rounded character. The lunatic, the criminal, the freak, the wastrel, represent the cultivation of certain traits in excess and the undue neglect of others. In the larger world, good government is that which respects the rights of the individual and the welfare of the whole community with equal scrupulousness. Anarchy is the excess of individual expression at the expense of social order: and despotism is the excessive pressure of the collective will upon the men and women for whose advantage governments are or should be ordained. Both are evil, and lead to sure and quick individual and social deterioration. The principle is illustrated on a large scale by the centripetal and centrifugal forces, which maintain

our solar system in place. Let the one have sway; and our earth would fly straight to the heart of the sun. Let the other dominate; and the planet would rush into outer space, to become frozen and dead forever.

A principle found to underlie all life and even the existence of worlds will be found to be worth observing in the solution of each specific problem. In the arts its application is obvious, and is strictly essential to the production of beauty of any kind. In practical affairs of life, the truth is no less apparent. In any business, there must be definite planning and regulations; but there must likewise be abundant room for individual initiative, with experimentation and adaptation to changing conditions.

How does this principle apply to the subject of calendar reform? Our present calendar, while representing a substantial advance over its predecessors of not so very long ago, still retains so large a measure of incongruity and incoherence as to make the need of some type of reform obvious to all who take sufficient pains to study the subject with any care. On the other hand, the tendency of human nature to pass from one extreme to another is clearly visible in the lighthearted manner in which certain calendar-reformers seek to create a bed of Procrustes for the human race, and to fix the days and weeks in an iron bondage.

If anything could be worse than the present costly and perpetually troublesome irregularities, it would be the artificial stiffness which the various 10-month, 13-month and other theoretical calendars would impose, in utter indifference to all impulses of human nature and to all the complications incident on such complete annihilation of past reckonings.

If nothing but a rigidly mechanized mode of calculating time is required, why should not the advocates of the 13-month year have the courage of their convictions and carry their logic to the last degree of consistency? A year can be artificially established which shall be mathematically fixed as a unit. All that is required is to lengthen the day by a few minutes, so as to make the year consist of exactly 364 days, making the necessary changes in hours, minutes and seconds to correspond. We shall then have an unvarying, eternally mechanized calendar for all time, regardless of the vagaries of the sun and the earth in their mutual relations; and there will be no need of extra year days and leap days. To be sure, all the timepieces in the world will have to be radically changed; but what is one more difficulty in comparison with the glory of having for all time a year that will be precisely identical with every other year, and will always consist of an exactly even number of weeks as well as of months? That no advocate of this ultimate triumph of consistent uniformism ventures to come forward, and that even the supporters of the 13-month calendar dare not follow their own logic to the end, shows that excessive precision in calendar matters is as impracticable as undesirable.

Herein lies the great strength of The World Calendar. It is sound in

principle, in that it seeks to banish chaos without making fetish of uniformity. It follows the rhythm of nature in its finely balanced quarterly sequences; while its moderate monthly diversity within each quarter allows a normal fluctuation, in harmony with our natural instincts. It removes the difficulties resident in our present haphazard year-arrangement without making drastic and violent changes. From every angle, it is a most happy combination of order and flexibility. The years are identical, except for the leap year interruption one time out of four. Its halves and quarters are alike, but its thirds and sixths, as easily obtained as at present, are slightly varied. There is room for placing the holidays where they belong, each on the day best adapted to it, and henceforth secure against the annoyance of shifting days of the week. While the first month of each quarter contains an extra day, that day is always a Sunday, so that the work-day months are regularly the same. Weekly accounts, payments, salaries, records, are as easy as at present; while those by the month or the quarter are facilitated by the regularity of these terms.

A most striking advantage of The World Calendar is the simplicity of the transition to it. To rectify the confusion of the present irregularity by a change of only seven days is an achievement which deserves more than passing emphasis. By causing the change to take place in a year which begins with a Sunday under the present reckoning, there will be no perceptible dislocation.

The contrast is most marked between this easy shift from confusion to harmony, and the violent wrench which was required on the last change in the calendar. Then eleven days were affected; and instead of being so distributed as to present a gentle transition, they were inserted in one place, creating a forcible break with the past, and shifting anniversaries to a great distance from their original positions.

The adoption of The World Calendar will leave a large percentage of anniversary dates entirely unchanged, and will shift the others by only a day or two. Contrast this with the 13-month proposal, which would destroy all continuity of anniversaries for a large part of the year, and would not leave a single month in its present state. It is the difference between a harsh revolution and a normal evolution.

The World Calendar follows the line of least resistance by disarming natural prejudices; while the rival proposal would intensify by many degrees the ordinary human reaction against innovations.

Every calendar devised for human use is a blend of nature and art. In The World Calendar we have natural law kept in the foreground, so that calculated design nowhere comes in conflict with the sequences inherent in the nature of things. To these basic conditions are added divisibility of the year into equal segments, easy transition to the reformed calendar, and a system of months and days easily learned and memorized.

EDUCATING THE PUBLIC

By O. L. DUSTHEIMER

Professor of Astronomy, Baldwin-Wallace College, Berea, Ohio

INCREASING interest in calendar reform has been evidenced by audiences whom I have addressed during the past few months. But there is still an amazing ignorance on the subject, and even a disinclination among many people to admit that the present calendar has any faults, or that its inaccuracies require remedial legislation.

The calendar, I am convinced, is the most conservative of all human institutions. Recognizing this fact, it must be admitted at the start that whatever changes are to be made should be as slight as possible. "Improvement without upheaval" was the excellent motto proposed for calendar reform by Flammarion, the French astronomer, in his sincere but unsuccessful campaign fifty years ago.

During my early studies of the subject I was attracted by Auguste Comte's plan for a 13-month year, lately revived by Cotsworth in England and by Eastman in America. For a long time I was inclined to the opinion that a 13-month year would be the best calendar for the world to adopt. But my later studies convinced me that the arguments against it are overwhelming, and that the 12-month system should be retained, with such changes as are required to meet the needs of modern life.

Every vital improvement claimed for the 13-month year is gained by the adoption of the 12-month system, known as The World Calendar, plus many other important advantages, including the enormous merit that the new plan can be installed without any revolutionary change.

In addressing audiences on calendar reform, I have usually found it advisable to start in elementary fashion, with a definition. What is the calendar? Where do we get the word, and why? Who started our present system, and what existed before that?

A calendar, of course, is merely a man-made system of measuring time. Days, weeks, months, quarters and years are units of measurement, exactly as the foot, yard and mile are linear units.

All these units have an origin in human convenience. The linear foot is derived from the length of a human foot, and the yard comes obviously from the length of an ordinary man's ordinary step or stride. So in our calendar: the day is the measure of the earth's rotation; the month is derived from the moon's completed passage and the week from its four phases; the quarters are the measures of the four seasons, and the year is astronomically fixed by the sun's orbit.

The name calendar comes from the Latin word "calendarium," which means account book. It was so named by the Romans because their in-

terest payments fell due on the calends of the month. The word calendar, then, has its origin in accounting, which is still a basic necessity in all human activity.

Since primitive man first started to apply accounting to the passage of the days, there have been hundreds of calendar systems. Gradually through the centuries, man has been forced to improve them in the interests of increased accuracy, to meet the needs of new scientific knowledge, or to remedy defects which only became apparent with the passage of time. Always the day, the quarter and the year have remained the essential units in his calculations, with the month and week inserted as convenient subdivisions.

From the earliest period, the day of 24 hours was man's primary time unit. But there has been no agreement as to the exact hour at which the measurement of the day should begin. The Egyptian day began, like ours, at midnight; but that of the Greeks and Chaldeans began at sunrise, and that of the ancient Italians and Bohemians started at sunset. Throughout the Mohammedan world, today, muezzins mount their minarets at sunset and solemnly proclaim to the faithful, as the sun drops below the horizon, that "a new day has begun."

From the earliest time, the year of approximately 365 days has been recognized by all mankind. But there has been no agreement as to the exact season which should mark the beginning of the year. Egypt measured the length of the year by astronomical observations of Sirius, the brightest star in their heaven, and began the year on the day when Sirius was first observed on the eastern horizon at sunrise. England and America observed New Year's on March 25 until shortly before the Revolution, and the Church of England still retains this date in its official religious calendar. Because the ancient Romans began the year with March, we still call September the "seventh month" and similar mathematical inaccuracies survive in the names of October, November and December.

The Romans, in fact, started out with a year of five months, which they later expanded to ten months. Finally in 713 B. C., Numa Pompilius added January and February, making a total of 12 months.

More or less independently, Babylonia and Egypt perfected somewhat similar calendars. The Egyptians used the obelisks in calculating days, months, seasons and years. They based their year on the changes of the seasons, dividing it into 12 months of 30 days each, with five days added at the end of the year.

Babylonia devised the seven-day week as a convenient subdivision of the month. Rome separated the month into three parts by means of the Ides, Nones and Calends, and the week was still unknown to Rome when Julius Cæsar perfected the modern calendar.

In urging calendar reform upon an ordinary average American audi-

ence, I usually follow my outline of the historical background with the observation that the calendar has never been static. It is a product of evolution, growing with man's increasing store of knowledge.

Further improvement in the calendar, then, is logical. Calendar revision is bound to come, because it is rational and in harmony with the spirit of a scientific, labor-saving, accuracy-loving, forward-moving age.

How, then, does our present calendar fail to meet the needs of business, social and international life? Most audiences will agree that unequal months are a source of statistical confusion and economic uncertainty.

The advantage of a perpetual calendar is apparent to anyone who gives the most superficial attention to the subject. Yet I have found this a difficult matter to make clear to the average audience. People are so accustomed to this particular irregularity of the present calendar that they find it hard to imagine the advantage from such a simplification.

Frequently an audience is best convinced by its own discussion of the subject, or by questioning the speaker informally from the floor. People of different occupations interpret calendar reform in terms of their own daily interests. The farmer is astonished to learn that the present calendar was planned for an agricultural civilization, when farming in some form was man's universal and overpowering concern. Today we live in an economic and industrial age, when even agriculture has been mechanized and the farmer is an overseer of robots rather than a mere toiler.

The business man responds to the argument that the calendar's fundamental purpose is for accounting, statistics and records. He realizes the burden that irregularities of time units impose on these departments of his daily life. He is quick to recognize the deceptive effect which these irregularities have upon statistical data.

The educator is aware of the variations in the calendar through the difficulties which he has in arranging scholastic schedules and meetings. The events of his school and college year shift annually to different dates or days of the week. Students, parents, teachers and school officers are forced to make continual adjustments.

The home maker finds an application of calendar reform in her household budgeting, in monthly bills and salaries, in the systematizing of social engagements, in a more satisfactory arrangement of week-ends and holiday periods.

Simplification of the calendar is highly important to employers and wage earners. Placing of holidays on Mondays has an obvious significance to both. So has the better spacing of pay-day periods for those who are paid monthly or semi-monthly. So has the equalization of the quarters, yielding a more perfect accuracy in budgeting, accounting and production.

For church audiences, aside from all these general arguments, there is special interest in the subject of stabilizing the movable feasts. The wide-

ly changing date of Easter causes all sorts of difficulties in the church year. Under the proposed new calendar church programs will be better arranged and more evenly balanced. The Christian year will fall naturally into two equal halves. There will be no dislocation, and no need in future to take Sundays from February to fill gaps in November.

Whatever the audience, then, a speaker finds them interested in many varied facets of his subject. And once they have become interested, their own processes of thought convince them that calendar reform is rational, logical and convenient.

One thing is certain—if a new calendar is adopted it should meet certain requirements: it should divide the year in regular order for better service as a time measure; it should recognize the astronomical divisions of the year, the day and the season; it should stabilize holidays and make the year stable and identical; it should be balanced in structure and perpetual in form; it should be entirely adapted to international usage, and it should be of such nature that the change from the present system is simple and easy. I believe that The World Calendar is the best solution.

OBITUARY NOTES

ALEXANDER PHILIP, father of the calendar reform movement in England, died at Dundee, Scotland, on January 21. He was 73 years old. Mr. Philip was regarded in England as the foremost authority on calendar history, and his book on "The Calendar: Its History, Structure and Improvement," published by the Cambridge University Press, will long continue to be one of the standard works on this subject. His attitude on various reform proposals is well known. "Proposals for the division of the year into 13 months seems to proceed, to a certain extent, upon a misunderstanding," he maintained. "If a perpetual Gregorian calendar were adopted, each of the 52 weeks would occupy a definite position in the year, and there would be nothing to hinder the grouping of weeks as convenient. But it would be wholly unnecessary to accompany these arrangements by an attempt forcibly to abolish the use for dating purposes of the familiar and well-known 12 months. Under the proposals of the 13-month plan, the whole dating system would be overthrown. There would be a breach with the past and confusion in the future. It can hardly be doubted that these proposals have no future in them; far from being a boon, they would be a great disturbance to business, public and private."

George Eastman, chairman of the National Committee on Calendar Simplification for the United States and chief supporter of the 13-month proposals for calendar reform, died at his home in Rochester, N. Y. on March 14. Mr. Eastman's activities in calendar reform were only one branch of his almost universal interest in educational and philanthropic enterprises for the good of humanity. During his lifetime Mr. Eastman is said to have given away more than $100,000,000, of which about one-third went to the University of Rochester. His will left the bulk of his $20,000,000 estate to that institution. It is understood that his support of the calendar reform movement will be continued by the trustees of his estate for the time being, or until it can be adequately provided for by others.

Captain Robert Dollar, one of the most prominent members of The World Calendar Association and a colossal figure in the American shipping world, died on May 16. His interest in calendar reform was of comparatively recent origin, his membership card in The World Calendar Association having been sent in about a year ago.

BAR ASSOCIATION HEARING

Excerpts from an Address by the President of The World Calendar Association, Before the Committee on Commerce of the American Bar Association, April 12, 1932

IT WAS in 1928 that the American Bar Association first indicated its interest in calendar revision, asking the Committee on Commerce to study the subject from its legal and commercial aspects. A year later the Bar Association adopted a resolution requesting the United States government to participate in international conferences on calendar reform.

A significant fact on both occasions was that the Bar Association avoided endorsement of any particular plan, notwithstanding the efforts of an active group of 13-month advocates. The more moderate and reasonable plan for a revised 12-month equal-quarter calendar was then almost unknown in this country.

Last year, however, I had the pleasure of addressing your Committee in support of this plan, known in the United States as The World Calendar, showing how it would remedy the important defects of the present calendar without the upheaval which must accompany adoption of the 13-month proposal. Your Committee, after giving the subject earnest consideration, decided to keep the question open until after the international conference which was to be held at Geneva in October. That conference has since taken place, and its proceedings marked progress.

It was my privilege to attend the sessions at Geneva in October, as well as the earlier meetings there of the Preparatory Committee which mapped out the program for the international conference. Perhaps the most important action taken was the weeding out of scores of impractical plans for calendar changes, which are now eliminated by international agreement. With these eliminations, the issue narrows itself to two principal plans for revision: the perpetual 13-month, and the perpetual 12-month equal-quarter calendars.

At Geneva the 13-month proposal lost significantly in strength between the meeting of the Preparatory Committee in June and that of the International Conference in October. In June, six of the 14 members of the Preparatory Committee endorsed the 13-month plan. In October, however, with 44 nations represented, only two delegates, those of Canada and Yugoslavia, were in a position to commit their governments to the 13-month idea. Switzerland, Greece, Belgium, Italy and Holland expressed opposition to any 13-month proposal. The American delegate definitely stated that the United States government did not favor any particular plan. The Secretary of the British Parliamentary Committee declared

emphatically that if the League of Nations should lend its support to a 13-month calendar, the sympathy of Great Britain would be irretrievably alienated. The Japanese delegate read an official statement that Japan would refuse any reform which would give the year 13 months.

The World Calendar, on the contrary, made friends at the sessions of the conference. Switzerland and Greece officially supported this plan, which was also approved by the representative of the British Parliamentary Committee. It had a large following in Germany, Italy, France, Belgium, Holland and the Scandinavian countries. Mahatma Gandhi submitted a statement in which he explained: "As most of the Indian calendars are arranged on a 12-month basis, it would obviously be easier to meet on this common ground. I am in favor of such a calendar."

Since the October meeting, there have been additions to the ranks of the 12-month revisionists, notably from Austria, China and Canada. The Austrian Minister in Switzerland has registered the opinion that a 13-month calendar is a "most extraordinary wildcat scheme." China has organized a national calendar committee in favor of the The World Calendar; and, in Canada, the retiring president of the Royal Astronomical Society suggests adoption of the 12-month plan. As for the United States, your Committee is already familiar with the increasingly wide public support for the same plan.

Summed up briefly, the Geneva report is in accord with the recommendation made to the conference by The World Calendar Association, namely, that the various governments should be allowed more time for study and education. The conviction was expressed that calendar reform is certainly desirable in principle, and that the present calendar is inadequate to the needs of modern economic and social life. But because of the world's present preoccupation with other matters and the need for more education, the League requested the governments to give calendar reform a more intensive study, and to stimulate public interest, before again taking up the matter in international conferences. This temporary delay is not a retreat but a spur to bring further action into the movement.

The first objective in correcting the calendar is to bring it into the realm of law, order and harmony. The builders of calendars from the beginning did acknowledge astronomy and certain laws of mathematics. They did not sufficiently recognize, however, the vast system of the universe, in which there is developed an orderly and harmonious arrangement made up of many complex parts. With the awakening sense of understanding a nicer regard for balance, variableness, order and stability, as evidenced by the cosmic law, is a necessity that must find its place in a calendar adequate for the present and future.

The International Fixed Calendar of 13 months is a disorganized arrangement in so far that it does not take the year as the principal unit.

It gives the month the important place and so arranges the month that it agrees with the days and weeks.

In contrast, the World Calendar of 12 months corrects the defects of the old calendar with a minimum of changes. It achieves law, order and harmony in a simple manner. It takes the *year* as the principal calendar unit, arranging its divisions harmoniously so that at the end of every quarter the days, weeks, months, season or quarter agree and the year with its perpetual feature is complete and stability is assured.

On the legal side Mr. George Gordon Battle has recently made a survey of those aspects of calendar reform which especially affect the courts and the practice of law. I would refer to Mr. Battle's findings as an important document for the use of your Committee in preparing any report which you may make to the Bar Association. Let me quote briefly his conclusions: "I believe most lawyers will favor The World Calendar. This plan appears to have all the advantages for which reform is sought and has no apparent disadvantages. On the contrary, it offers a simple perpetual system which may be achieved with very little change and without disadvantage."

Closely allied to the legal viewpoint on calendar reform is that of commerce and finance. H. Parker Willis, professor of banking at Columbia University and influential in the drafting of the Federal Reserve Act, has given us his studies and observations. Briefly summarized, he says: "The 13-month year would be a backward kind of reform. A 12-month year is absolutely essential, for a change in the number of months in the year would throw out of gear our whole system. The economics of the case call for the fewest and most simple changes that are absolutely requisite, in order to eliminate the evils that have been found under the old system."

The old system of the calendar is outworn; it no longer fits our age. The time has come for individuals and especially for influential organizations and Committees like your own, who favor calendar reform, to concentrate earnestly on further constructive action.

In closing, may I suggest: First, that it would be valuable if you could make a formal report on your deliberations, the publication of which after four years of observation and study would constitute an important basic and instructive contribution to the movement. Second, that a decision for a definite plan of calendar would be highly desirable. It would have a far-reaching effect and would help to form and crystallize public opinion.

The probability exists that some one country will take the courageous stand and legislate for a final calendar reform and plan. Legislative enactment in this direction would stimulate other governments and bring concrete results by the time the League of Nations again considers the subject in 1935. Thus by 1939, when the year under the present system begins on a Sunday, the new calendar may be inaugurated.

ADVERTISERS' PROBLEMS

By Sabine L. Baring-Gould
of the Wm. H. Rankin Company, Advertising Agency

Bearing a famous English name, the author of this article has achieved an important place in America as a member of the advertising profession. He is a grandson of the novelist, Sabine Baring-Gould, who wrote nearly 100 books on a variety of subjects and was rated by Barrie as one of the seven great writers of the past century, but is perhaps best known to the present generation as author of the hymn, "Onward Christian Soldiers."

ADVERTISING expenditures are largely governed by the week; appropriations are generally made by the month; and appraisals of results are frequently done by the quarter or half-year. The lack of harmony between these three time units is one of the most serious handicaps which advertisers and their agencies encounter in their activities, and is the reason why members of the advertising profession are keenly and spontaneously interested in calendar reform. The frailties of the present calendar are the cause of countless problems, compromises and adjustments in advertising. The imperfections of the calendar make the balancing of advertising costs to budgetary requirements a constant difficulty, and they put an annoying element of guesswork into the computation of results. Some of the advertising man's troubles would be greatly lightened by the right sort of calendar reform.

For example, a large part of the newspaper advertising of department stores is concentrated on Sundays. To a slightly lesser extent this is also true of steamship companies, railroads and travel agencies. Other advertisers prefer certain other days of the week for their announcements. Food advertisers like the end of the week, when household buying is being done for the week end. The same is true of drug advertisers. A great deal of shopping is done on Saturday afternoons—the only opportunity of many who work through the week to do their buying, and advertisers whose products are more likely to be bought at that time tend to concentrate their advertising toward the end of the week. Others, whose products can be bought conveniently at any time—tobacco and cigarettes, for example—will often prefer a day when the newspapers are lighter and are not running so much other advertising.

As a result, advertising expenditures in newspapers, the radio or weekly magazines, may vary by as much as twenty per cent from month to month, depending upon how many Sunday, or whatever other days of the week the advertiser may have found best suited to his message, there are in a given month. These variations follow no clear cycle in the present calendar. Expenditures, therefore, are not comparable from month to month,

or from quarter to quarter. Nor is any one month or even quarter comparable from one year to the next. The variations are difficult to provide for and to appraise, and comparisons of expenditures and results with similar periods of preceding years are rendered an almost impossible task, a task that is still further complicated by the fact that our various holidays, and the buying that always precedes them, fall on no settled days of the week.

The fixing of our various national holidays and their location as far as possible at the beginning of the week is, from an advertising point of view, a most important point in calendar reform. Advertising's one purpose is to stimulate consumption. A large part of the consumption of many commodities and services is associated with our various holidays. For that reason advertising expenditures usually reach a peak both toward the end of the week and before a holiday. With our present calendar holidays are so variable, and frequently so inconveniently situated in the middle of the week, that they fail to provide the opportunities for travel, recreation or the use of commodities and services that they would under a better adjusted calendar.

The arrangement of holidays as far as possible on Mondays would do much to stimulate consumption,—industry's present greatest need. It would make the planning of holidays customary and possible many weeks in advance. People soon would grow accustomed to doing something definite over each holiday. They would make the necessary arrangements to travel, go on automobile trips or short cruises, or do a thousand other things which would stimulate buying. Calendar reform, therefore, is an important economic weapon against depression.

It is gradually coming to be recognized that it is not sufficient to provide attractive articles for people to buy, to advertise these articles in such a way that a real want for them is created, to give workers high wages so that they can afford to buy these articles—and then fail to provide an opportunity for their enjoyment. Yet, to a large extent, that is exactly what has been done.

An automobile in many sections of America has become a doubtful blessing. Opportunities to enjoy its use on the part of many owners are few and far between. The opportunities, when they come, are of such short duration as to prohibit the taking of worthwhile trips. The definite location of our national holidays on Mondays would at once permit the planning of short vacations and the enjoyment of their automobiles on the part of large sections of the public in a way that has never before been possible. The increased use of automobiles in this way would stimulate buying in numberless directions. The increased sale of automobiles, tires, gasoline and oil would not be the only benefit. Clothes, shoes, camping equipment and all other things that contribute to the enjoyment of a holi-

day would also be bought for such occasions, and many languishing industries would reap the advantages.

Many of the benefits discussed above would be obtainable with almost any one of the reformed calendars that, at one time and another, have been proposed. Some of these calendars, however, will be found on examination to carry with them disadvantages that would actually outweigh the benefits that might accrue from their adoption. This is perhaps particularly the case with the 13-month calendar.

The 13-month calendar, having no quarter or half yearly periods, would render comparisons and budgeting from year to year and period to period extremely inconvenient and difficult. Circulation statements, statements of advertising volume, and even the basis upon which such figures are computed would have to be drastically revised. These figures are in most cases based on a six months' average. Their adjustment to a 13-month calendar would be a matter of considerable difficulty. Yearly averages are not enough—great changes can take place in advertising within a year, which such averages would not reveal.

Determined opposition to the 13-month calendar can be expected from at least one important quarter. Its very adoption would be sufficient to bankrupt a number of monthly magazines. It can be taken for granted that, in these days, advertisers are not going to increase their magazine advertising costs in order to provide advertising sufficient to support one extra issue each year. Such magazines, therefore, would be forced themselves to bear the cost of getting out one whole extra issue yearly with little or no additional advertising support.

Advertisers themselves would resent the change. A magazine is likely to be thrown away, or at any rate will become less likely to be read or looked at, as soon as its next issue makes its appearance. The effective life of an advertisement in a monthly publication would, therefore, by the adoption of the 13-month calendar, be decreased by one-thirteenth.

The World Calendar possesses none of these disadvantages and yet provides almost every advantage that could be claimed for any other calendar. The one doubtful advantage it cannot lay claim to is the absolute fixation of the month which is so much emphasized by advocates of the 13-month plan. But the tedium of such an arrangement, the dislocation of so many established practices, the complicated adjustments that would have to be made in order to effect the change, are obvious, and certainly outweigh any theoretical advantages that might be conceived to accrue from a 4-week month.

One of The World Calendar's most striking points is the very slight re-adjustments that its adoption would entail,—yet the great simplification of many problems that would result. We have, in The World Calendar, an improvement whose value cannot be denied.

NEW BRITISH ORGANIZATION

By C. DAVID STELLING
Secretary, Rational Calendar Association, London

IN Great Britain, the cause of Calendar Reform is making steady progress, despite the fact that here, as elsewhere, the vital problems caused by the world economic situation make it difficult to secure attention for other issues. It is, however, abundantly apparent that there exists an undercurrent of real interest in the subject which is centered as far as this country is concerned in the recently formed Rational Calendar Association, and in the battle for stabilization of movable religious feasts.

As long ago as 1921 the International Chamber of Commerce, meeting in London, signified its approval of proposals for calendar reform, and urged the calling of a special Congress for the purpose of "adopting an unchangeable and perpetual calendar." Ever since that date calendar reform has been the subject of occasional discussion at meetings of Chambers of Commerce, Chambers of Trade, Rotary luncheons and similar functions, while many individuals have interested themselves in the subject, even to the extent of evolving their own schemes of reform.

Calendar reform, in short, has not suffered from any lack of appreciation of its advantages. It has been retarded in its progress however by the absence of a single organization devoted exclusively to its advocacy. The Rational Calendar Association makes good this serious defect, and not the least of its functions will be to provide a much needed channel of expression for the Chambers of Commerce and other important bodies which are likely to add their voices for an efficient, modernized calendar.

The man who may be regarded as the pioneer of the movement in Great Britain is Lord Desborough, a member of the peerage with a great record of public activities to his name. As it is sometimes suggested that movements of this kind emanate from scholars or men of academic interest rather than from practical men of the world, it is perhaps not irrelevant to give some details of Lord Desborough's career. He was in his youth an exceptional athlete, and not only rowed for Oxford against Cambridge, but also became President of the Oxford University Athletic Club. His subsequent athletic achievements were various. He climbed in the Alps, shot in India and the Rocky Mountains, stroked an eight across the English Channel, and swam twice across the Niagara River.

When he was a member of the British Parliament, Lord Desborough acted as Private Secretary to the Chancellor of the Exchequer, and was subsequently chairman of various Government committees, and other public bodies. He also held the important position of President of the

London Chamber of Commerce, while later he was President of the British Imperial Council of Commerce.

It was Lord Desborough who was responsible in 1928 for the introduction in Parliament of the Bill to stabilize Easter. He took the view that, as a matter of tactics, it would be best to secure reform of the calendar in two stages, of which the stabilization of Easter was the first.

It was thanks entirely to his advocacy and influence that the Easter Act of 1928 was passed into law. This Act provides that at any time an Order in Council may be made fixing Easter Day for the first Sunday after the second Saturday in April. In deference, however, to religious opinion, it was also provided in the Act that before any such order was made, regard should be had to any opinion officially expressed by any church or other Christian body.

It should be recalled that in England both Good Friday and the following Monday are public holidays, so that Easter has come to be regarded as a four-day national holiday. For this reason there is a popular demand that it should fall in mid-April and so provide a short Spring holiday for business people, at a time when the weather is usually much better than it is in March. The fact that with the 12-month perpetual calendar, Easter day would always fall when the country had changed its bleak winter garb for the green raiment of spring is a point of importance with British audiences.

Just before this year's uncomfortably premature Easter, Lord Desborough again raised the subject of the Easter Act in the House of Lords, and asked for advice as to how to approach the Holy See in the matter. The present position is that lay opinion in the whole of Europe is in favour of stabilization, and the Christian churches are only awaiting the assent of the Holy See, which has stated that, so far as dogma is concerned, there is no obstacle to the Act being put into operation. In the course of the debate the Archbishop of Canterbury observed that it was obvious that the position was in the hands of the Holy See, and he expressed the earnest hope that the Catholic Church would give its approval.

That is where the question stands at present, but it has to be remembered that the Holy See informed the League of Nations in 1924 that it would, in any event, only examine the question on the preliminary recommendation of an ecumenical council. These councils meet but rarely, and the last occasion was more than sixty years ago. In view of the powerful demand for action that exists in this country, it is possible that failing a satisfactory response by the Roman Catholic church to the appeal of the League of Nations made as a result of last October's Conference, the churches here will be urged to take the initiative, and the Rational Calendar Association, in moving towards this end, will have the support of all bodies which have been urging for many years that action be taken.

As I have already indicated, the question of Easter has its particular significance for those who are urging general reform of the calendar, in that in Britain it is regarded as the essential preliminary step.

Readers of the Journal of Calendar Reform will be aware that the referendum instituted last summer by the Parliamentary Committee on Calendar Reform among typical sections of the British people disclosed that, when attention is drawn to the defects of the Gregorian calendar, four persons out of five regard reform as desirable. It was further made clear that a 13-month year is definitely repugnant to British feeling and common sense, and that in normal times a rational 12-months' scheme, such as that advocated by The World Calendar Association, would find ready acceptance in this country.

I was recently in discussion with Lord Desborough on the subject of calendar reform. Though he is now 77 years of age, he is still very active in body and extremely alert in mind, but it will be appreciated that he is not inclined to undertake the work and the responsibility of any new official position. He discussed the objects of the Rational Calendar Association very sympathetically and indicated clearly that he approved of the principle of a perpetual and simple calendar on the basis of equal half years and quarters, adding that he was all against the 13-month year. There is no doubt that the London Chamber of Commerce and Chambers of Commerce throughout the country will be prepared to follow this lead.

The aims of the Rational Calendar Association are described as follows: "1. To secure a stabilized Easter. 2. To secure the adoption of a rational perpetual calendar. 3. To resist the attempt to impose upon the nations a 13-month year. 4. To co-operate with organizations in other countries having similar aims."

In the leaflet which the Association has been distributing, it is stated that the Association has been formed to co-ordinate the existing efforts, and to organize public opinion in support of the movement for reform with a view to ensuring that action is taken. The leaflet is having an excellent response. From all parts of the country members are enrolling, and one morning's mail brought me enrollment cards recently from—among many others—a political secretary, a Brigadier-General, a journalist, a teacher, a librarian, an engineer, a commercial traveller, a Member of Parliament, a Church of England minister, a Nonconformist preacher, a research chemist, a photographer, an iron-moulder, an Oxford graduate, a bookseller, a deputy-Mayor, a Trade Union Secretary and a provision merchant. So representative a list as this indicates that there is no lack of interest in a question which in some measure affects the daily lives of all of us. And we have good reason to hope that before long the Rational Calendar Association will be as powerful in its membership and its influence as its sister organization, The World Calendar Association.

AS SEEN BY THE CHURCH

By David Ross Fotheringham
Vicar of Charing, England
Fellow of the Royal Astronomical Society

INTRODUCTORY NOTE

By Lord Desborough

Revision of the Calendar is of special interest to myself, as on July 21, 1920, I moved a resolution in the House of Lords in favor of the summoning of an international congress to consider the question, and on April 27, 1921, I introduced a bill to establish a fixed Easter, the date suggested being the second Sunday in April.

The date of Easter varies now as much as 35 days and the reasons for the variation are plainly set out in the following pages. The elaborate tables compiled by Clavius occasionally lead to strange results. When I attended the congress of international Chambers of Commerce in Rome in 1923 and carried a unanimous resolution in favor of a fixed date for Easter, the Resurrection that year was being celebrated before the time of the Crucifixion, according to the moon, which was at the full on the afternoon of Easter Sunday. This was owing to the fact that Easter was celebrated according to the tables.

Mr. Fotheringham has given conclusive reasons for considering Friday, April 7, A. D. 30, to be the actual date of the Crucifixion, and this date was adopted as the basis of the Bill I brought forward in 1921.

The matter has been referred to the League of Nations. A committee was appointed on which the Pope, the Ecumenical Patriarch and the Archbishop of Canterbury were represented, and the conclusions they arrived at were favorable to the reform. A questionnaire was submitted to the nations composing the League, and the replies were practically unanimously in favor of it. The time has come when steps should be taken to bring it about.

I sincerely hope that the move will come from the churches. Secular opinion has been clearly stated at representative gatherings for many years past, culminating with the action taken at Geneva. Easter is a church festival, and it would be a misfortune to add to existing difficulties any conflict between church and state. We want one Easter and not two Easters, ecclesiastical and secular, which may perhaps happen if the reform is too long delayed.

WHILE all nations of the world, whether ancient or modern, have used either a solar or a lunar calendar, the Christian church has hitherto used a double calendar, partly solar and partly lunar. It remains to consider whether it may not be possible, or even advantageous, to remove this anomaly, and whether a single calendar might not serve the church better than that at present in use.

A calendar serves a double purpose. It measures time and records events. Where the historic sense is weak or lacking, the second purpose is apt to be overlooked. But memory is tenacious, and there is a sacred link that binds the present to the past. A child's birthday, a woman's wedding day, the remembrance of noble deeds and great events, national

as well as religious festivals, are deeply engraved on the heart, and calendar makers or reformers must take count of them.

The French Revolution was contemptuous of history and the past. A new chronology was started with the Year One. A new calendar was devised (though in truth it was an imitation of the calendar of the Pharaohs 60 centuries before) that bore no relation to the long familiar calendar of Europe. But anniversaries are not so easily forgotten, and the new calendar perished unlamented.

Such a warning should not pass unheeded. For there is danger now of another attempt to overthrow the Julian calendar and substitute a merely mechanical device, that might indeed measure time with approximate uniformity for the future, but would be neglectful of the past—as, for example, a year of 13 months of 28 days each!

No one who regards the history of Europe, or his own country, or the Christian church, can really afford to sacrifice the Julian calendar. That calendar may be amended, as it was before by Pope Gregory XIII and may be again, but it cannot be dispensed with.

The festivals of the church are generally classed as "fixed" or "movable," The distinction is convenient, but not strictly correct. The truth rather is that there are two calendars in use, the solar and lunar, and every festival is "fixed" in one or the other of them, but not in both. The two calendars may be compared with the two standards of monetary value, gold and silver. Where gold is the basis of currency, the price of silver necessarily fluctuates; and where silver is the basis, the price of gold fluctuates. It is the same with calendars. The date of Christmas depends on the taxing or enrollment under Quirinius, Roman governor of Syria. The official records of the census are no longer extant and the date can now only be fixed indirectly. But the original connection remains. So Christmas becomes a fixed festival in the Roman calendar of Julius Cæsar, which was solar.

But the date of Good Friday and Easter depends on the Jewish Passover, and is fixed by the lunar calendar of Moses and his rabbinic interpreters. And since the lunar and solar calendars are not uniformly consistent, what is fixed in one is necessarily variable in the other. The Jews used the lunar calendar. A lunation or true lunar month consists of a little more than 29½ days. An ordinary year might therefore contain six short months of 29 days, alternating with six long months of 30 days. Such a year would fall 44 minutes behind the moon every month, or nearly nine hours in all. To correct the deficiency, the alternation of short and long months was occasionally broken, and two consecutive months would each contain 30 days. No month had a permanent fixed length. The commencement of each month was fixed by actual observation of the moon.

It will be seen that the lunar year falls 11 days short of the solar year. Among the Mohammedans these 11 days are allowed to accumulate, and the error continues to increase through the centuries. But other nations who have used a lunar calendar have rectified the error by the insertion of an intercalary month (a second Adar or Veadar among the Jews) on an average of seven times in 19 years. And as the commencement of the month was fixed not by rule but by actual observation of the moon, so the insertion or otherwise of Veadar was dependent on observation of the crops, especially the growing barley, so that the first fruits of the harvest might follow immediately on the Passover. Such a calendar surprises moderns by its simplicity. But in practice it worked well. There was no Year of Confusion as at Rome in 46 B.C., or in England in 1752. The best clock is on the dial of Heaven, and the true calendar is written on the sky. The Chaldeans and Jews escaped the errors and confusion into which all artificial calendars have sooner or later fallen.

The Jews and Mohammedans still retain the lunar calendar, but the nations of Europe have adopted the solar calendar. It follows that to us Christmas is a fixed festival, and Easter movable.

Adjustment of the two calendars has been the problem of many minds and many ages. Where the lunar calendar has been followed, the month is the natural unit, visibly marked on the night sky by the moon's phases. But the importance of the year can never be ignored. What follows is that the month has its true length of 29 or 30 days. The year can only be averaged, to contain 12 or 13 months, and ranges from 354 days to 385.

With the solar calendar, which is also sidereal, the year is the unit, and contains 365 days or 366. The problem then is the month, which necessarily becomes detached either from the moon or from the year. In our present calendar the month averages about a day longer than the true lunation, so that the moon's phases fall about a day earlier each successive month. Obviously the solar and lunar calendars can never be permanently synchronized: the best to be hoped for is an average approximation.

To this complexity a third complication is added in the case of Easter by the need to consider the day of the week. Originally the week may have been a convenient subdivision of the month, marked in the sky by the quarters of the moon. But a perfect harmony between the week and the month is just as impossible as between the month and the year. Yet the Lord's Day is consecrated to the weekly remembrance of the resurrection, and the appropriateness of keeping Easter on Sunday is evident. Sunday is in fact a weekly Easter, and the sect of the Quartodecimans has now no followers.

The church has never found it easy to formulate a rule defining Easter Sunday. Evidently Easter must preserve its connection with the Jewish Passover, which was dependent on the ripening of the Palestinian harvest.

Apparently it is the intention of the church that Easter should be kept on the Sunday following the full moon next after the vernal equinox. Astronomers can now date the equinox to a moment of time. But formerly the best that could be done was to assume that the equinox would fall on March 21. Even under the reformed Gregorian calendar this is far from being always the case, and the accumulated error of the unreformed Julian calendar (slight though it is, scarcely 12 minutes a year) amounted in time to 13 days, so that the equinox drifted at last to March 8. In the same way it has not been easy to date the full moon. To the ancients, the first appearance of the crescent in the evening sky was the visible new moon and the beginning of a new month, and the full moon was the 14th day of that month. To modern astronomers "new moon" and "full moon" are the precise moments of conjunction and opposition between sun and moon. The result is that the carefully elaborated tables compiled by the Jesuit astronomer Clavius no longer satisfy.

The tables deserve high praise, but from time to time the inconsistency between the tables and the moon becomes apparent. In such cases it is customary to justify the tables by explaining that they do not relate to the actual moon seen in the sky, but to a supposititious "calendar moon"—which, being interpreted, is a public confession that the tables and the calendar are wrong.

In the circumstances it is not surprising to find attempts made to simplify the calendar by disregarding the moon altogether, and fixing the anniversary of Easter in the solar calendar. Clavius was prepared for such a proposal, but did not favor it himself. It is easy to feel the weight of the opposition. The church year represents an approximate lunar calendar for ten months, from the full moon of Septuagesima till the last Sunday after Pentecost or Trinity. Attention is rightly due, also, to the circumstances attending the crucifixion and resurrection. The full moon shone on Gethsemane on the night of the betrayal, bathing the garden in brilliant light against which the shadows showed deep and black. By the light of the same moon shining through their casements, the women had prepared the spices and embalmments. By the light of the setting moon they made their way before the first Easter daybreak to the sepulchre. When they turned their footsteps home, the moon of Judaism had set and the sun of Christianity arisen. The traditional connection between the Easter story and the Easter moon is long and tender, and not to be despised or lightly broken.

But there is an insistent and ever-increasing demand for simplification of the calendar. The very improvement in artificial lighting has gone far to make us independent, or even unconscious, of the moon. The adoption in recent years, even by China, of the Gregorian calendar, now makes a solar calendar the standard of nine-tenths of the human race. Finally,

the complexity and occasional error of the Clavian tables weakens the defense of the present system. As the gold standard is becoming after long centuries the uniform and world-wide standard of currency, to the exclusion of silver, so the solar calendar is becoming the uniform measure of time, to the exclusion of the moon.

It is only in the last seven years, however, that the vague desire to fix the date of Easter in the solar calendar has taken concrete shape in a definite and reasonable proposal. This is largely due to the efforts and influence of Lord Desborough, to whom special credit is due not only for patient perseverence in the cause, but also for the moderation with which it has been urged. The proposal is not for a revolutionary re-casting of the calendar. The church calendar will be kept in its entirety, but it will no longer be dependent on the moon. The requirements of the Roman Missal, the Greek Liturgy, or the English Book of Common Prayer, will remain. Finally, it should be added that the closest attention has been paid to the historical and astronomical evidence for determining the actual date of the crucifixion and resurrection with a view to keeping the true anniversary.

For the purpose of calendar reform it may be assumed that April 7 can be reasonably taken as the day of the crucifixion, and consequently April 9 for the resurrection—the first Easter.

Anxious to find a formula simple to express and easy to remember, Lord Desborough has broadly said "the second Sunday in April," and has carried a practically unanimous vote from local and international Chambers of Commerce and similar institutions, whose importance cannot be denied, in nearly every part of the world.

The question was considered by a Committee of the League of Nations, and the recommendation of the Committee is that Easter should be "the Sunday following the second Saturday in April." The Committee wisely added that as Easter was essentially a religious and Christian festival, the ultimate decision must rest with the church. Apparently the time is ripe for revision.

In the church calendar Our Saviour lives again, and we may follow His steps as the disciples did of old. To view the Life in due proportion, the calendar must be true to history and must accurately represent the life Our Saviour lived on earth. Just as the civil calendar aims at astronomical accuracy, so the Christian calendar must be based on historic truth.

Surely when the reform of the calendar is reverently suggested and its advantages explained, it is not too much to ask that it may be carefully considered, and even welcomed and finally approved, by ecumenical authority.

EDITORS' NOTE.—A fuller treatment of this subject by Mr. Fotheringham and Lord Desborough is contained in a scholarly book published in 1927 by Macmillan, under the title, "The Date of Easter."

EASTER CONSIDERATIONS

By Elisabeth Achelis
President of The World Calendar Association

"My interest in this reform of the calendar is emphatic and definite," says Dr. Robert Norwood, Rector of St. Bartholomew's Church (Protestant Episcopal) in New York City, in an introductory note to the following article, which appears in a current issue of *The Churchman,* leading organ of Episcopal thought in America. Dr. Norwood's weekly department in the pages of *The Churchman,* under the title "The Mountain Trail," is followed with keen interest by thousands of the clergy and laity. In giving up most of his page to this article on calendar reform and the Easter question, Dr. Norwood explains: "Miss Achelis has been for some time one of the most ardent advocates of the reform known as The World Calendar. Hence the following article from her pen, which I have asked for the readers of 'The Mountain Trail'. I wish particularly to commend her advocacy of a permanent Easter date, and invite my readers to participate in this important discussion which Miss Achelis presents with her usual vigor and clarity of thought."

THIS year's unseasonable Easter has stimulated the interest of people in the world-wide movement for its stabilization. The Prayer Book shows that Easter may come as early as March 22 and as late as April 25. The average date during the past century has been April 8 and the actual date of the Resurrection according to astronomers and historians was April 9, the 99th day of the year. All those interested in stabilizing the date agree that the Sunday nearest to April 9 should be chosen.

The League of Nations has been in communication with the various religious organizations on the general subject of fixing movable feasts. Within the next year it will request the opinion of religious authorities as to the stabilized Easter and its fixed date, leaving the decision to the churches.

Certainly, a permanent Easter date would be a great benefit to the churches and the public. It would simplify the church year by giving it always the same number of Epiphany and Trinity Sundays and regulating the dates of Ash Wednesday, Palm Sunday, Easter, Whitsunday, and other religious feast-days. There will be no more early Lents and wandering Easters.

A curious fact is noticed this year in connection with the early Easter date. All religious and secular organizations whose fiscal year ends the last day of March will record in their reports of last year two Easters and in the new year just begun, no Easter at all will be recorded.

The wandering quality of Easter is of course due to the fact that many

early Christians were Jews and associated it with the Jewish Passover, which was set according to the Jewish lunar calendar. Hence, the old method of figuring Easter according to the vernal full moon persisted.

Everybody recognizes the inconvenience of a wandering Easter and need for reform, but not everyone realizes that similar difficulties exist in the calendar itself and call for revision. The unnecessary irregularities of the present system are a constant inconvenience to modern life with its manifold activities and a handicap since one never knows upon what day of the week a given date will fall in successive years. To establish order and regularity is obviously needed.

There have been no serious objections to calendar reform save those rooted in inertia and a lack of information. The last general change was made by Pope Gregory XIII and was adopted in America in 1752. The present demand for revision, therefore, is no innovation.

A reasonable form of revision, known as The World Calendar, is being urged in many countries and has won a large following from those who have seriously studied the subject. Particularly it has found favor among people who objected to an earlier proposal for a 13-month calendar.

The 12-month year has stood the test of ages and has behind it the sanction of convenience, usage, religion, and tradition. In its arrangement, balance and divisibility are maintained. To abandon the 12-month year is unthinkable.

Advocates of The World Calendar show how the 12-month year can be retained, yet so adjusted as to remove the annoying irregularities and inconveniences. This plan regulates the length of months and divides the year into four equal quarters, so that the first month has 31 days, the other two have 30. Every quarter begins on a Sunday. In the first quarter, January has 31 days, February and March 30. In the second quarter, April has 31 days, May and June 30. The third and fourth quarters follow the same pattern.

This totals 364 days. The 365th day needed to complete the year is called Year Day and is placed on an extra Saturday after December 30th, a Saturday. This method always permits the first day of the year to be Sunday so that the new year repeats exactly the preceding year. The accumulated fractional day which makes the 366th day, Leap Day, is placed on another extra Saturday in mid-summer after June 30th. These two days are essential to the calendar if it is to be stabilized and conform to astronomical accuracy. The wandering character of week-days in the present system is eliminated.

The introduction of Year Day and Leap Day is like the addition or subtraction of an extra hour at the end of a day when people journey across the continent or the Atlantic. Thus, Standard Time may well be considered the forerunner of the perpetual calendar.

This earlier reform stabilized the 24-hour day throughout the world, notwithstanding the fact that travellers spend 25 or 23-hour days when covering great distances, and their time instrument, the watch, is advanced or retarded. This variation, caused by the sun's light shining upon different places on the earth at different times, does not interfere in the slightest degree with the even succession of the 24-hour day. And likewise the smooth recurrences of the week in a perpetual calendar would not be disturbed by the adding of an extra day every year and another one in Leap Years. Moreover, these days, Year Day and Leap Day, are placed between weeks and considered as special days, thus the sanctity of the seven-day week is zealously upheld. No extra day breaks the sequence of the weekdays between Sunday and Saturday.

It is self-evident that a perpetual calendar will bring to time-measurement a desirable regularity, stability and accuracy. Such a calendar follows the pattern of the universe, that basic system of order, and it is only reasonable that mankind should aim to achieve the same quality in the reckoning of time—for time and the universe are interrelated.

Now that the principle of the perpetual calendar is explained, let me briefly revert to the Easter date. The League of Nations suggests that Easter fall on the first Sunday after the second Saturday in April which in both the perpetual 13-month and the 12-month plans would be Sunday, April 15.

This date because of its use for mid-month financial reckonings acquires too materialistic an association and furthermore there are objections to Good Friday always falling on the thirteenth. In the World Calendar the Sunday corresponding to April 9, the historical date, is April 8 with Good Friday falling on April 6 and Whitsunday coming on May 26.

Of course, it is recognized in our country that a subject so essentially religious in character as the stabilization of Easter and its regular date, is primarily a church matter and there is no doubt that Christian churches in the interest of the welfare of humanity will agree amicably on the matter. Toward that end, religious leaders can exert tremendous influence in advocating a stabilized Easter and declaring for a specific Easter date, at the same time indicating their preference for a definite calendar plan. Messages from the pulpit and pen will bring this movement nearer a realization.

CURRENT PRESS COMMENT

Trouble Will Disappear

Jacksonville (Fla.) Times-Union

But it is remarked that the lack of agreement between the days of the week and the days of the year is obviously the most serious fault of the present calendar. Every recurring date, every fixed holiday, every birthday or fete day invariably falls every year on a different day of the week. All such trouble and inconvenience will disappear, it is claimed, if we arrange the calendar so that days of the week and the days of the year always fall in the same pre-arranged order.

It Is Agreed

Geneseo (N. Y.) Leader

Much progress is being made in the move for the World Calendar of four equal quarters with 12 months and the stabilization of Easter. At the International conference in Geneva, Switzerland, recently, most of the delegates favored the World Calendar and likewise were against the 13-month proposal, which has been backed by George Eastman of Rochester. The World Calendar Association now is trying to sever popular belief from the opinion that the World Calendar and the 13-month calendar are the same. It must be realized that several calendar reforms have been put forth, but the World Calendar has received the most support. The only strenuous objection put forth has come from the Jews, but at the same time they agree to cooperate to the fullest extent if time proves this is the calendar the world wants. The only real obstacle of calendar reform lies in the fact that it took years to finally get the present Gregory Calendar put in use, which means that Calendar reform is one of the slowest processes. Most educators are strongly in favor of the World Calendar, but different religious bodies have raised minor objections. One thing that almost everyone agrees on is the stabilization of Easter, a day that now roams about the calendar anywhere within a thirty-day period.

However it is agreed that if any calendar reform is brought about it must still retain the 12-month period for astronomers and mariners point out the 13-month plan is against nature. And another bad feature of the 13-month plan is that 13 is not divisible.

One encouraging point is the fact that some sort of calendar reform is greatly needed but some nations, notably England, the country that gave us daylight saving time, do not think that the time is quite yet ripe for reform. When the reform does come, and we hope it comes soon, we also hope that it will be the World Calendar, of four equal quarters containing three months of 31, 30 and 31 days respectively with two international days coming at the middle and at the end of the year

Religious Consideration

Flint (Mich.) Journal

Owing to the designation of certain religious holidays in many churches, the question of change has numerous ramifications which must be carefully considered before a decision is made. Most of the religious considerations are believed to be possible of solution on a 12-month plan, however.

General Trend

Adrian (Mich.) Telegram

The fact that we have been getting along under a system that is nearly four centuries old is scarcely sufficient to establish the point that we shall always be satisfied with that system. The history of the world is a wavering line of shifts and changes, some up and some down, but with the general trend always advancing toward progress in thought and action. The world moves slowly, but it moves continuously, and when it reaches the point of conviction on the matter of calendar revision the old system will be scrapped and the new one will be put in its place.

Educational Work

Waterloo (Iowa) Courier

There are many drawbacks to the Gregorian calendar. To change it, however, would affect every individual, every home, community and nation. It is a broad undertaking. Intensive educational work must precede a change.

FROM THE MAILBAG

It's not in the order of things for 20th Century business to try and operate on a 14th Century schedule. Reform is inevitable and will be hastened by your work.—Frank W. Braden, Traffic Accountant, Bell Tel. Co., Chicago.

The Journal is greatly appreciated as a source of lucid and convincing educational material in behalf of a much needed calendar reform.—Henry D. Aves, Bishop, Seabrook, Texas.

I am following your work with interest. My hope is that the reform will come in my day.—Ludd M. Spivey, Pres. Southern College, Lakeland, Fla.

Think your plan is the best of the many which have been proposed from time to time.—S. Turner Foster, Clergyman, Carbondale, Pa.

I have enjoyed the reading of the Journal and I believe the revised 12-month calendar is as good as can be devised.—Wm. C. Coffin, Miami Beach, Fla.

Many thanks for your booklet received some time ago. Most interesting for the reading room.—Mrs. M. B. Lambert, Librarian, Liberty, N. Y.

It ought to be changed, so as to be a regular thing, instead of an irregular thing. One you can keep in your mind and not a new thing every year.—Chas. A. Roberts, Principal, Clarke School, Boonville, Ind.

I like the World Calendar plan and wish it might go into effect with the beginning of 1933. I believe it would give universal satisfaction.—C. D. Kressley, Clergyman, Allentown, Pa.

Our old calendar is certainly a nuisance. —William J. Robinson, M. D., New York.

I have been much interested in efforts being made to bring about the adoption of a World Calendar that would help in systematizing the organization of time in the interest of simplicity and convenience.—Clarence W. Greene, Pres., Parsons College, Fairfield, Iowa.

I have been interested in the subject of calendar reform from the beginning of this modern movement.—Elihu Thomson, Engineer, Swampscott, Mass.

The World Calendar meets with heartiest approval. It is a simple reform establishing uniformity of calendar dates heretofore very changeable.—James E. Merrill, Editor, Battle Creek, Mich.

Your World Calendar, 12 months, carefully balanced, and divided by halves and quarters, meets my hearty approval, and in my view promises to win wider acceptance than any of the others that have been proposed. — Martyn Summerbell, Pres., Starkey Seminary, Lakemont, N. Y.

The Journal of Calendar Reform is splendidly clear, and educational. I hope it has a wide circulation.—Francis A. Gray, Postmaster, Middletown Springs, Vt.

The proposed World Calendar is the most practical suggestion as a calendar reform that I have seen. It would meet all the needs of time measurement with little confusion in making the change.—W. H. Detamore, Supt. of Schools, Mankato, Minn.

If the present calendar must be reformed, in my opinion the most reasonable and fitting plan is that offered by the World Calendar Association.—John K. Cruze, Lithuanian-American Press, Brooklyn, N. Y.

Thirteen month plan intolerable. Continuity of calendar historically most important. The proposed 12 month plan seems to avoid more difficulties and remedy more evils than any other, and would seem to promise more permanence—the thing most to be sought.—F. O. Seamans, Clergyman, Henryetta, Okla.

Recently we have organized a National Committee to study the calendar revision. The majority of opinion is in favor of the 12-month plan as advocated by your Association.—Dr. C. S. Yu, Official Astronomer, Institute of Astronomy, Nanking, China.

I consider it of paramount importance to oppose strongly any idea of a 13-month year, the most extraordinary wild-cat scheme ever heard of. I therefore gladly join The World Calendar Association.—Max Hoffinger, Austrian Minister to Switzerland, Berne.

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EDITORS

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THE UNITED STATES government, in its formal reply to the League of Nations regarding the proposed stabilization of Easter, is in accord with the opinion of The World Calendar Association that in this country, the Easter date is primarily a religious question, for decision by the churches. The State Department's letter to the League says:

"The Acting Secretary of State of the United States of America presents his compliments to the Secretary General of the League of Nations, and has the honor to acknowledge the receipt of his communication of February 5, 1932, setting forth the text of a resolution adopted by the Council of the League of Nations on January 25, 1932, in regard to the Act on the fixing of movable feasts which was adopted on October 20, 1931, by the Fourth General Conference on Communications and Transit. The Secretary General desires to be informed as to whether the American Government endorses the ad referendum vote which was cast in favor of this Act by Dr. Charles F. Marvin, American representative at the General Conference.

"In reply, the Acting Secretary of State takes pleasure in informing the Secretary General that the American Government endorses the ad referendum vote of Dr. Marvin on the Act regarding the stabilization of movable feasts, on the understanding that this vote was in favor of the general purport of the Act, namely, that the General Conference thereby expressed itself as of the opinion that the common good, from a purely economic and social standpoint, would be served by such stabilization. The American Government feels that the desirability of stabilization from a religious point of view, as well as the method and dates of stabilization and all other questions relating thereto, are matters to be determined solely by the religious authorities concerned, and are not, in consequence, affected by its endorsement of the general purport of the Act."

Some illuminating discussion of the Easter question is included in this issue of the JOURNAL. The article by the Reverend Edward S. Schwegler presents an authoritative Roman Catholic viewpoint. The article by the Reverend David Ross Fotheringham indicates the attitude of the Church of England. The article entitled "Easter Considerations" is from *The Churchman,* voice of the Protestant Episcopal church in America.

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485 Madison Avenue, New York City

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